

List of the Claims

Following is a list of claims currently pending.

1. -9. (Cancelled)

10. (Previously Presented) A method for patterning structures on a substrate, comprising:

providing a substrate underneath a tip of an Atomic Force Microscope;

providing a vapour of a material, which is suitable for Chemical Vapour Deposition onto the substrate when decomposed, in a space between the tip and the substrate; and

exposing the tip to a light beam emitted by a light emitting device in such a way that the tip intensifies an electromagnetic near-field created through a surface Plasmon resonance to such an extent that the vapour is decomposed, wherein an intensity of the light beam at the tip of the Atomic Force Microscope is not enough to decompose the vapour.

11. (Previously Presented) A method according to claim 10, wherein providing said vapour comprises providing a gas selected from a group consisting of Halides, Hydrides, Metal Organic Compounds, AuClPF_3 , $\text{W}(\text{CO})_6$, TiCl_4 , TaCl_5 , WF_6 , SiH_4 , GeH_4 , $\text{AlH}_3(\text{NMe}_3)_2$, NH_3 , $\text{Ti}(\text{CH}_2\text{tBu})_4$, $\text{Ti}(\text{O}i\text{Pr})_4$, $\text{Ti}(\text{NMe}_2)_4$, $\text{Cu}(\text{acac})_2$, and $\text{Ni}(\text{CO})_4$.

12. (Original) A method according to claim 10, wherein exposing said tip to said light beam comprises emitting said light beam onto said tip in such a way that a polarization of said light beam is parallel to a longitudinal axis of said tip.

13. (Original) A method according to claim 10, further comprising adapting a wavelength of said light beam to match the size of said tip such that a sufficient amplification of said light beam is achieved.
14. (Original) A method according to claim 10, further comprising applying a laser to emit said light beam and exposing said tip to said light beam.
15. (Original) A method according to claim 10, wherein said Atomic Force Microscope has multiple tips, further comprising providing said substrate underneath said multiple tips.
16. (Original) A method according to claim 15, further comprising metalizing one or more of said multiple tips.